Chapter VII

THE LATER YEARS

The Washington Monument was declared officially opened on 9 October 1888, with the passage of an appropriation by Congress of just over $10,000. In succeeding years this figure grew until it reached around $16,000 or $17,000. These appropriations did not include the cost of replacing expensive equipment or extensive maintenance, both of which demanded special legislation.[1]

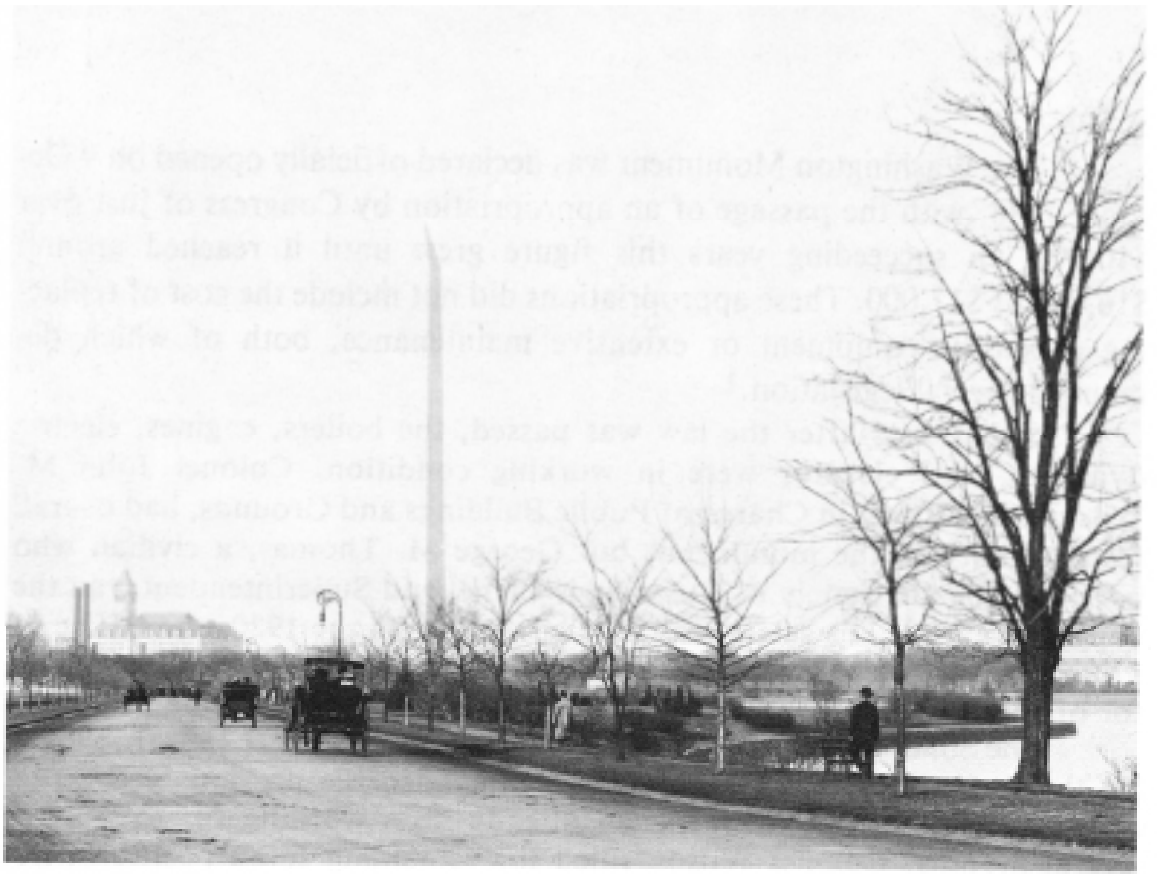
Seven days after the law was passed, the boilers, engines, electric dynamos, and elevator were in working condition. Colonel John M. Wilson, the Officer in Charge of Public Buildings and Grounds, had overall responsibility of the monument, but George M. Thomas, a civilian who bore the title alternately of Custodian, Clerk, and Superintendent, ran the daily operations. His salary was $125 a month.[2] In the 1920s the Office of Public Buildings and Grounds was reorganized under the new title of Director of Public Buildings and Public Parks of the National Capital.

The Sundry Civil Act passed by Congress on 2 October 1888, provided for the staff of 11 that Casey had recommended the previous year. The custodian and three watchmen had already been working for Casey for several months. Colonel Wilson filled the remaining seven positions. So many candidates applied for these few jobs that he complained that in his "long life, I have seldom had such a rush for a few places and I have tried my best to satisfactorily fill them. ...The demands upon me are simply overwhelming and my regret is that it is not in my power to give employment to the hundreds that are constantly seeking it."[3] Wilson observed that those he selected, particularly firemen, steam engineers, and elevator operators "must be experts" in their field, able to handle any type of emergency. He promoted two former laborers at the monument to floor attendants.[4] Over the years the number of employees varied slightly, depending frequently upon appropriations. The number ranged between 6 and 12, but usually remained at 11.

Congress fixed eight hours as the maximum workday. Wilson noted that if the hours of operation were extended, the monument would need to hire four additional employees: an assistant engineer, an assistant fireman,

an attendant, and a car conductor. This would mean a $1,000 increase in operating cost.[5] There is little evidence that the staff was ever increased much beyond the original 11, even after the hours were extended to include Sundays and legal holidays.

In 1902 the staff, with the exception of the firemen, were required to wear uniforms comparable to those of employees at the Capitol and the Corcoran Art Gallery. The employees paid for their uniforms, which consisted of blouses and caps.[6]



The Tidal Basin, c. 1910, with the monument in the background. *Library of Congress.*

Visitors

The monument had generated widespread interest even while it was being built. Before it was completed, and long before the elevator worked, thousands of visitors ascended the stairs and marveled at this unique structure. Although Casey and his assistants regulated these early visitors by issuing passes, 10,041 people visited the monument between April (when this policy was instituted) and September 1886. The staff faithfully kept the logbooks. They recorded the daily attendance of visitors and the number that either used the elevator or climbed the 893 steps to the top. During the next eight months the number grew to 27,000. The absence of an elevator apparently was no obstacle to the curious.[7]

After the monument officially opened in October 1888, attendance soared. In the first nine months 613,175 people visited the monument. By the turn of the century, 1,696,718 came, and by mid-1914, some 4,095,088 visitors were counted.[8]

During its first years of operation, the monument maintained restricted hours, Monday through Friday, nine to five. Pressured by several private groups, in 1914 Congress approved a Sundry Civil Act containing a provision for an additional appropriation to keep the monument open on Sundays and legal holidays. The new policy was inaugurated on August 1. On weekdays the monument was open from 9:00 A.M. to 4:30 P.M., and on Sundays and holidays it was open from 12:30 P.M. to 4:40 P.M. The number of visitors also increased. During the fiscal year ending June 1915, 30,610 people visited the monument on 48 Sundays and seven holidays.[8]

By February 1923 a grand total of 6,156,302 people had visited the monument; of this number, 4,561,249 used the elevator and 1,595,053 hardy visitors ascended the stairs. By June 1931 the monument's staff had registered 10,048,776 visitors to the monument since its opening, 7,319,347 of whom used the elevator while the other 2,729,429 climbed the stairs.[10]

Extenuating circumstances sometimes closed the monument. When Presidents Harding and Wilson died, the monument was closed out of respect. When a coal strike gripped the nation and there was little fuel to operate the monument, visitors were also turned away.

Although individuals comprised the bulk of visitors, special large groups such as societies and associations were also welcomed. When the Grand Army of the Republic encamped in Washington for six days in September 1892, more than 30,000 members visited the top of the monument and another 20,000 entered the monument without ascending. In August 1895 Congress permitted the Knights of Pythias to occupy the grounds around the monument. In what must have been an unusual event, on the evenings of 12 and 14 May 1899, the monument, with its elevator and electric lights operating, played host to the American Society of Mechanical Engineers, which held its annual meeting in Washington.[11]

Requests for permission to use the monument for personal gain or for some unusual purpose frequently beseiged the custodian. In this respect, the monument was no different from other great attractions, such as the contemporaneous Statue of Liberty in New York Harbor. The custodian rejected demands that he considered undignified and unsafe. One couple sought permission to be married "at an elevated position" in the monument with a bridal party of five or six. A congressman even requested that one of his constituents be granted permission to scatter his wife's ashes from the window of the monument.[12]

Other requests were more consonant with the dignity of the monument. The Liberty Loan Committee of the Treasury Department received permission to suspend a large sign on the north side of the monument just

below the windows to further the sale of Victory Notes. A powerful searchlight on the nearby Arlington building illuminated the sign at night.[13] Another individual was granted permission to study the characteristics of atmospheric currents from the top of the monument by releasing a small balloon attached to a fine thread from the window.[14]

In the annual report for fiscal year 1897, Colonel Theodore A. Bingham, who had replaced Wilson as Officer in Charge of Public Buildings and Grounds, boasted that "it is a noteworthy fact that no one has yet been killed or fatally injured either during the erection of the Monument or its administration since completion."[15] After he issued that statement, however, one worker plunged to his death while painting the interior iron. In 1924 a woman attempting to save her three-year-old-child who had slipped on the stairs, fell through the guard rail from the 400-foot level and was killed. The child was found, cut and bruised but otherwise safe, on the stairs.[16]

In 1915 there was a suicide when a woman leaped to her death from the 480-foot landing. In the 1920s two people jumped from the windows of the pyramidion.[17] These deaths led to the construction of a third guard rail on the stairway and iron bars on the windows.

The Office of Public Buildings and Grounds worked to improve the visitors' comfort. To enhance the lighting system, the number of lights was increased and the dynamo and wiring were rebuilt. Additional lights were placed wherever visitors congregated to wait for the elevator. In 1923 new cables and conduits were installed, adding to the power, light, and heat. The local power and light company did the work and controled the power, obviating the services of one engineer and two firemen.[18]

In 1904 a small reception room was built on the ground floor. The frame of the room was made of steel I beams and channel irons and the walls and ceiling of concrete. The floor was composed of mosaic and marble wainscot. The room was lighted with electric bulbs, heated by steam, and furnished with four oak settees.[19] This room contributed significantly to the comfort of visitors, who often had a long wait for the elevator.

In 1890 steam pipes were instalied around the walls of the lower floor, providing heat to visitors waiting for the elevator. The heat from these pipes could be felt as high as the 250-foot level. That same year a storm door was installed at the entrance to the monument. This was replaced later by a revolving door.[20]

Over the years various safety features were added. In 1927 a third guard rail was added to the stairway and a metal grill covering the three guard rails was installed to prevent accidents of the kind that had occurred in 1924.[21]

In 1931 red lights were installed on one of the windows on each side of the pyramidion to warn aircraft. Experiments were also conducted using different types of floodlights and searchlights to light up the monument as a

further warning to approaching aircraft. As a result, it was possible to prepare specifications designed to eventually illuminate the exterior.[22]

Vandalism and other public nuisances had been a growing problem ever since visitors were permitted to walk up the monument in 1886. Souvenir hunters chipped away at the memorial stones and drew graffiti on the walls. Seedy characters hawking their wares frequented the grounds. Casey and his assistants, seeing the damage, appealed as early as December 1885 to the Joint Commission to curb these practices. Casey warned at one point, "It would seem proper that some action should be taken to prevent these occurrences, which if continued may impair the stability of certain parts of the structure."[23]

The commission instructed Casey to establish a code of conduct and police regulations to govern behavior at the monument. Whatever Casey drafted would have to be transmitted to Congress, which legislated regulations. Casey immediately drew up a set of rules, and in early January 1886 Chairman Corcoran submitted them to the Senate Committee on Public Buildings and Grounds. The rules tried to cover the violations that had been committed at the monument up to that point. They restricted walking around the monument to roads and paths. They forbade the sale or advertisement of any article and the solicitation of any kind of contributions on monument grounds. The regulations prohibited several mischievous acts, but most importantly forbade the marking, defacing, and disfiguring of any part of the monument "or to chip off fragments or pieces from any of the stone, iron, or other parts of the completed structure or its surroundings. . . ." Violations of regulations would be punished by a fine of at least $5, imprisonment for 15 days or more, or both. For serious offenses in which damage exceeded $100, the offender would be remanded for trial and if found guilty imprisoned for six months to five years. The proposed regulations gave monument employees the right to assist the police in arresting offenders.[24]

Congress took more than one year to pass the required legislation, much to the frustration of the commission, which was anxious to be "clothed with the much needed authority to fully protect the monument from any distinctive act of vandalism." In the meantime, vandalism continued unabated, as visitors defaced and mutilated many parts of the structure with impunity.[25]

By the end of 1888, the rules and regulations laid down by Congress had been superseded by a code of conduct prepared by the Office of Public Buildings and Grounds. These rules were designed for the monument's employees as well as for the visitor. In addition to outlining the responsibilities of each employee, they established hours of visitation and the number of times that the elevator would be operated in one day. They gave the watchman the power to arrest any person committing malicious mischief and required all employees to notify the watchman of any violation

that would lead to arrest.

Whenever a new officer was appointed to head the Office of Public Buildings and Grounds, it was customary for him to establish his own rules on running the monument.[26] Serious violations leading to the defacement of government property were governed by the United States Statutes, which provided "a penalty of not more than fifty dollars for each and every offense." An offender unable to pay the fine would serve six months in a workhouse.[27] The Officer in Charge of Public Buildings and Grounds insisted that his watchmen use their powers of arrest, anyone not doing so would be fired. Watchmen were not "figure heads," said Colonel Wilson.[28]

The regulations did not deter persistent violators because there were too few employees to enforce them. Between July 1888 and June 1889 the Officer in Charge of Public Buildings and Grounds reported numerous instances of vandalism, particularly grafitti and the defacement of memorial tablets. In 1904, 30 cast iron signs warning visitors against committing any acts of vandalism were placed on alternate landings. One of the most flagrant violators removed three of the four silver letters from the stone presented by the State of Nevada.[29]

Vandalism continued unabated over the years, much of it against the memorial stones. Some youths threw stones and other objects from the windows of the pyramidion. They were arrested and brought to justice, but most often the offenders went unpunished.

The Memorial Stones and the Bronze Plaque

Memorial stones continued to arrive long after the monument was completed. Many of them were reduced and inserted in walls wherever there was space. Placements continued through the 1920s. Many stones that were already hanging and had been vandalized or that showed signs of wear were repaired and cleaned periodically.

During the final years of construction, a serious question arose that plagued the custodians long afterwards. In 1887 the Society had offered to hang a bronze plaque on the ground floor. No one would have objected had it not contained the names of several illustrious members of the Society without adequately mentioning the many government officials and agencies, including the Corps of Engineers, who had contributed so much to the monument's construction. Without intending to embarrass the Society, the Joint Commission, probably at Casey's insistence, rejected the plaque on the grounds that it contained too much detail. The commission had no objection to a plaque being hung in the Marble Lodge that was to be built as an administration building, provided that the inscription was shortened to contain only the names of those who were directly identified with the monument's history and construction.

The matter was dropped until 1890, when the Society again proposed to place a bronze plaque on the south wall of the first floor. The tablet, which weighed about 900 pounds, was in the final stages of completion and was probably the same one offered to the Joint Commission three years earlier. When Colonel Wilson forwarded the request to General Casey, who was then the Chief of Engineers, Casey advised the Secretary of War that:

> The inscription in bronze... goes too far in some directions and not far enough in others, and as a history of construction of the obelisk is misleading and unjust. Work done by the general government in completing the monument as it stands today, having first purchased from the society the unfinished and faulty designed structure, is scarcely alluded to, and the presentation of the matter is not one that should be handed down to posterity. The inscription is largely an aggregation of names and persons to be perpetuated in the monument to George Washington, many of whom had nothing to do with the construction of the obelisk, while hundreds who subscribed their money and were members of the society, are not recorded. A similar inscription was brought to the attention of the Joint Commission during the last administration, and its introduction in the monument was not authorized.

With Casey's words to support him, Secretary of War Redfield Proctor rejected the Society's request. There the matter stood for several years.[32] The finished tablet was stored in the Marble Lodge where the Society had an office. After Casey's death, the Society tried anew to have the plaque hung in the monument, but this also failed.[33] Although no more was heard on the subject after this attempt, the precedent had been set for accepting similar plaques. Requests by various groups in later years to hang such tablets were rejected "not only for reasons of taste, but also for reasons of policy.[34]

Structural Problems

In 1884 and 1885 Casey recommended a process that would seal the interior joints of the monument's walls and halt the slow deterioration of the stone caused by the high levels of condensation.[35] The Joint Commission did nothing, and the problem plagued the custodians later. The condensation was so intense at times that attendants wore overshoes and raincoats to keep dry. By the turn of the century, the interior condensation began penetrating the joints of the outer walls, causing the marble ashler to discolor and disintegrate at the joints.

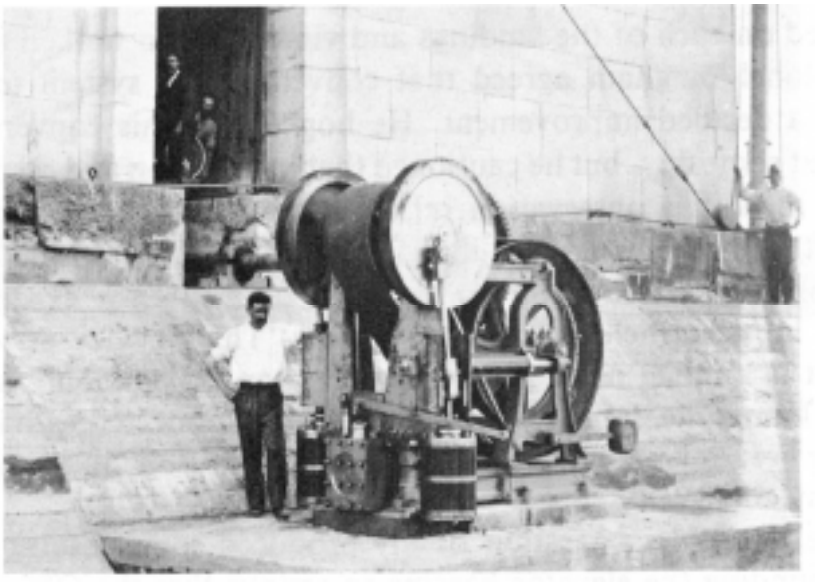
Although no longer officially associated with the monument, Bernard Green remained interested in its development. He observed that because the stone in the lower portion of the shaft had been joined together with poor

mortar and rubble, the heavy condensation that inevitably formed penetrated the joints of the stone, causing the lime mass to disintegrate and to form "scales or barnacles" on the white marble. Other professional observers pessimistically wondered how long this condition could last without shortening the life of the monument. One geologist and head curator of the National Museum believed that if the condition continued, the chemical action would eventually destroy the structure. He believed that the only way to cure this deterioration, which he referred to as a "tuberculous" condition, was to shore the lower 190 feet of wall, remove the outer facing, and replace it with granite.[36]

This extreme remedy was based on a prevailing concept that favored the use of granite over marble. Others offered more moderate solutions. The Obelisk Water Proofing Company suggested its Carfall process of rehabilitation. The company was convinced that the condensation formed in the interior was not only seepage penetrating the walls, but that heavy precipitation was also causing the marble to deteriorate. If the exterior walls of the obelisk were waterproofed by a chemical used by their firm, they argued, the monument would then be covered by a "sheet of tin," preventing any water from damaging the surface. The Office of Public Buildings and Grounds denied that precipitation caused major damage and declared that waterproofing the exterior was futile.[37]

Disagreements over the cause of the disintegration and what could be done to prevent it continued for many years. In the meantime, nothing was done. In 1931 the Director of Public Buildings and Public Parks of the National Capital declared that the monument was deteriorating so rapidly "that definite action for its preservation will soon have to be taken." The exterior marble was spalling badly, and he feared that falling stone fragments would injure someone. He reported that if Casey's recommendations had been heeded, the problem could have been avoided or at least minimized. The director announced that, "studies and estimates for the necessary remedial steps" had begun.[38] While it now seemed that some action would finally be taken, the ultimate responsibility would soon be out of the hands of the Corps of Engineers. In 1933, the National Park Service assumed control of the monument.

The elevator continually vexed the Office of Public Buildings and Grounds. The same elevator and machinery that were used in constructing the obelisk served visitors many years after the monument opened officially. The machinery was run by steam generated in boilers connected to an engine by pipes laid in trenches cut beneath the surface. The steam caused considerable corrosion within the boilers and pipes, which then had to be dismantled and cleaned. Moreover, because the machine operated continually, the cables that hoisted the elevator car became so worn that they often had to be replaced, shutting down the elevator for several days. The expense of maintaining the elevator proved extremely high.



The monument's steam-driven elevator engine. ***Library of Congress (photograph USZ62- 15295).***

Technicians of Otis Brothers and later inspectors of the District of Columbia checked the elevators monthly for serious defects. The monument's staff also examined it each morning. Colonel Wilson insisted that every precaution be taken to see that there were no malfunctions. He cautioned his custodian that "the moment you have reasonable grounds for belief that the elevator. . .is not perfectly safe, you are hereby directed to suspend using it at once and to take. . . the necessary steps for immediate repairs.[39]

In spite of these precautions, many people remained concerned about the elevator's safety. Wilson moved quickly to allay these fears whenever he could. In one of his reports to the Chief of Engineers he stated, "It is believed that the elevator is as safe as it is possible for man to make it, and every effort is made to prevent accident; should an accident ever occur it will result from something which it was impossible to foresee."[40]

Despite these frequent assurances of safety, complaints continued. Some of them originated with the Society, which, as adviser to the War Department, felt obliged to call attention to the inadequacy of the elevator. The Society recognized that although the elevator may have represented the most advanced ideas available when it was installed, it had long since become obsolete and was poorly adapted to serve the increasing number of visitors. The Society suggested converting the elevator to electricity. The new elevator would move faster and hold more passengers.[41]

The elevator took about 10 to 12 minutes to ascend and descend the 500 feet. This discouraged many visitors from going up. Although the elevator was slow and frequently needed repairs, the stalwart visitor was not deterred. Bent on viewing the monument at any cost, he climbed to the top, unless the structure was shut down completely. The electrical system also had to be repaired often. When there was no electricity, kerosene lanterns

were placed on each of the landings and visitors again walked to the top.

Colonel Bingham agreed that converting the system to electricity would be a decided improvement. He hoped that this conversion would come about some day, but he cautioned that installation and operating costs would be high. His observation reflected the parsimonious attitude of a Congress that had always kept its appropriations for the monument at as low a level as possible. Although he was certain that the existing elevator was safe, he nevertheless cryptically said: "The elevator service of this monument is a much more serious matter than is commonly understood, and while I am quite desirous. . . that everything connected with it should be of the very best, it is also true that careful consideration must be exercised in making any changes."[42]

The Society's suggestion finally produced some results. The problems surrounding the elevator became so serious that the Office of Public Buildings and Grounds pressed more aggressively for a new one. A more sympathetic Congress now listened carefully. In his report to the Chief of Engineers, Bingham said:

> Steam is carried 800 feet under ground with many pipe joints requiring continual care of their packing; one of the two boilers practically does nothing but keep this pipe hot. The elevator cage is 1,000 pounds heavier than need be; and so on.
>
> It would be very easy to substitute electric power. A small addition to the boiler house could be built to hold the dynamos; the current would be carried under ground where the steam pipes now are. A lighter elevator cage could be used, with a counterweight, so as to make the load on the dynamos as light as possible. The lighting of the Monument would not then require a separate dynamo.
>
> More than this, there would then be an independent source of power for lighting the grounds about the Monument and south of the Executive Mansion, and even for the use of the Executive Mansion itself and its front grounds.

He estimated the total cost of installing the electric system at $26,500.[43]

The arguments in favor of an electric elevator system were convincing, and in 1900 Congress passed the necessary appropriation. The new system, in operation the following year, was a decided improvement. The new elevator took five minutes in either direction. The car held as many as 35 passengers, the equivalent of a 10,920-pound load. It weighed 5,670 pounds, and its counterweight was 8,040 pounds. The dynamo produced 50 kilowatts and 250 volts.[44]

The new system required much less maintenance. Cables had to be changed because of the extensive use of the elevator; new cables installed in 1905 cost $2,500. They were each 1,070 feet long and 1-1/2 inches in diameter and consisted of six strands of the best steel wound around a hemp center. Tests showed that these cables had a tensile strength of 130,000 pounds.[45]

A casualty insurance company and local government agencies periodically inspected the elevator. The increased number of visitors created so much stress on the system that frequent inspections were extremely important for safety and efficiency.

Such heavy use soon made the equipment obsolete. In 1925, following a routine inspection, the Office of Public Buildings and Grounds estimated it would cost $10,000 to accomplish needed substantial repairs to the system. While the system was basically sound, it was old and mechanically obsolete. The Officer in Charge wisely recommended that instead of spending a large sum on repairs, they install a new and modern electric elevator. The War Department agreed and immediately submitted a request for an appropriation to Congress, which appropriated $30,000 "for extraordinary repairs and replacement of the elevator and machinery." The new equipment was completely installed in June 1926.[46]

The Marble Lodge

When Casey submitted his annual report to the commission in December 1886, he reported that only the terrace, or earth-filling, needed to be finished and a building for a watchman and for the public comfort had to be built. This small building, called the Marble Lodge, was the brainchild of the Society. It would serve as offices for the custodian and the Society, an archives for the monument's construction and Society's records, and a comfort station for visitors. The Society offered the commission $12,000 that it had raised and earned through investments to cover the cost of construction. Moreover, it wanted Casey to select the design and supervise the work.[47]

Once it was determined that the Marble Lodge was within the Joint Commission's responsibilities, Casey was immediately assigned to construct

Architect's rendering of the marble lodge. ***National Archives (Record Group 79, file 74.20-3).***

the building. In May 1887 he asked the Washington architectural firm of William M. Poindexter and Company to prepare drawings. By September plans and specifications were in his hands.

Casey was to select a site that was neither so close that it detracted from the monument's appearance nor so distant that it inconvenienced visitors. At first Casey picked a spot 325 feet from the monument. The commission preferred a closer location, so he reluctantly selected one only 40 feet from the monument.

In the meantime, Wilson succeeded Casey and gave the contractor instructions to begin work on this site in April 1888. The Building Committee had second thoughts and switched to a site 480 feet east of the monument.[48]

Because the contractor had already begun work at the earlier site, some time was lost in making the change. Work on the new location started at the end of May 1888. Despite Wilson's persistent prodding the work progressed slowly at first. It soon became evident that the contractor would be unable to meet the September deadline specified in the contract. The Marble Lodge was finally finished in January 1889. Although the building cost the Society $10,720, it spent an additional $930 because of the change in location. The completed lodge was transferred to the United States under the custodianship of the Office of Public Buildings and Grounds.[49]

The Terrace and the McMillan Plan

The monument grounds continued to cause debate. In March 1887 a contract to fill in the earth around the monument and Babcock Lake was awarded. The contract was completed in December 1888, although at least twice Colonel Wilson complained to the contractor that he was using ashes, mortar, bricks, and other refuse contrary to the contract's provisions. Grading the grounds, beautifying the landscape, and building concrete and stone walks continued for several years. Drainpipes were also laid to improve drainage, a constant problem. Several thousand cubic yards of earth were bought for the grading, but several thousand more were received without cost to the government when various Washington contractors found the monument grounds a convenient place to dump their soil. Another 1,630 cubic yards of broken stone and concrete hauled to the monument as refuse by contractors, without cost to the government, were used for foundations to build walks and roadways surrounding the grounds. These new roadways and walks permitted the visitor to approach the monument from different directions.[50]

The monument grounds, an extensive park covering about 78 acres, became one of the most popular Washington attractions. In 1893 the Officer in Charge of Public Buildings and Grounds believed that this park was

destined to become the Mecca for visitors from all over the country. The rapidly growing number of visitors in the years after its completion proved the enormous popularity of this park. Every effort, therefore, was made to keep the grounds looking as attractive as possible. Lawns were cut frequently, the landscape was properly maintained, paths and roads were repaired, gutters and drain traps were kept clean and in good working condition, and washouts were frequently repaired in and around the monument.[51]

The grounds became so popular that Congress, the Executive, and City Fathers constantly watched them. Preservation and beautification plans for the District of Columbia, particularly for the Mall, soon included the monument grounds. Although the idea of elaborate terraces, such as the one proposed by Mills' design, had not been entirely abandoned, it had lost favor in many artistic circles. Several plans were offered in and out of Congress to enhance the monument grounds as part of a broader plan to beautify the city of Washington, including the Mall and parks.

One far-reaching concept was the McMillan plan of 1901, named after Senator James McMillan of Michigan, sponsor of the bill. Although Senator McMillan spearheaded the plan, a commission consisting of such prominent building and landscape architects as Daniel H. Burnham, Charles F. McKim, Frederick Law Olmsted, Jr., and Augustus St. Gaudens, was responsible for the concept. The plan incorporated three major concepts—enhancing and enlarging the Mall, restoring L'Enfant's central theme of seeming to place the Washington Monument at the axes of the Capitol and the White House, and constructing a memorial to Abraham Lincoln at the north end of the Mall. The plan also included improvements for other parts of the District of Columbia.

The monument grounds were essential to the success of the McMillan plan. Echoing some of the arguments of the past, the commission said:

> At present the immediate surroundings of the Monument are so inadequate as to cause the beholder near at hand to lose that very sense of grandeur which it inspires when seen from a distance; and the lack of harmonious relationship between it and the great structures with which it comes into juxtaposition disturbes one's sense of fitness. No portion of the task set before the Commission has required more study and extended consideration than has the solution of the problem of devising an appropriate setting for the Monument; and the treatment here proposed is the one which seems best adapted to enhance the value of the Monument itself.

This same commission had praised the monument as being one of the "most stupendous works of man" and "one of the most beautiful of human creations."[52]

The commission favored an elaborate formal treatment. On the east side, a broad terrace would provide a base for the obelisk. On the west side,

a long reflecting pool would extend to the proposed Lincoln Memorial. Finally, in the most controversial part of the plan, the commission proposed a huge stairway down to a sunken garden centered on a pool and fountain marking the intersection of the White House and Capitol axes.[53]

The McMillan plan was obviously a long-range proposal. While some of the projects, such as the widening and beautification of the Mall and the construction of the pool and Lincoln Memorial, were eventually executed, the monument grounds remained essentially untouched. Plans for the grounds had not been abandoned, however. On the contrary, strong feeling persisted inside and outside of government that if the McMillan plan were to succeed, its plans for the monument grounds would also have to be realized.[54] Nevertheless, the heavy cost of the plan made many in Congress with an eye on austerity hesitant to support it. Two other significant factors also lessened the possibility of completion. One was the question of engineering feasibility—to what extent would the proposed changes affect the monument's stability? A second question, which had been raised under Casey, was how the sunken garden and its related features would interfere with the imposing simplicity and dignity of the structure, characteristics that had gained numerous adherents ever since the monument was completed.

Proponents of the McMillan plan argued that the garden and terraces would not be appendages to the monument, and that they would leave untouched the simple splendor of the obelisk. One supporter said, "Seen from the lower level [i.e., the sunken garden] the Monument gains an additional height of nearly 45 feet, while at the same time nothing is suffered to come so near as to disturb the isolation which the monument demands".[55]

Opponents questioned the engineering feasibility of the project. They reasoned that building the sunken garden would require excavation of a deep and large depression on one side of the monument. The Office of Public Buildings and Public Parks of the National Capital was convinced that this would lighten the load on the foundation on the west side. At the same time, building terraces on the east side of the monument would add weight to the foundation on that side. The two actions together would create an imbalance that would lead to an uneven settlement in the subsoil of the foundation, resulting in injury to the shaft. Lieutenant Colonel Ulysses S. Grant III, Director of the Office of Public Buildings and Public Parks of the National Capital in the 1920s, recommended to Congress that the National Capital Park and Planning Commission, appointed in 1926, be provided with an adequate appropriation to investigate the engineering feasibility of the McMillan plan or a modification. He suggested that the commission hire experts in foundations to conduct borings that would extend to solid rock or solid earth, something that had never been done.[56]

Congress agreed with Grant and appropriated $30,000 to study the feasibility of constructing the garden and terraces according to the

McMillan plan. In May 1930 an advisory committee was appointed consisting of eminent architects and engineers, including Frederick Law Olmsted Jr., and Major Douglas H. Gillette of the Corps of Engineers. After the early construction records of the monument were carefully studied and extensive borings were made around the grounds, the committee uncovered considerable information on the subsoil that had never been clearly evident in the early records. The committee found that the monument rested upon a "stiff" bed of sand and gravel, "underlain with a thick blanket of

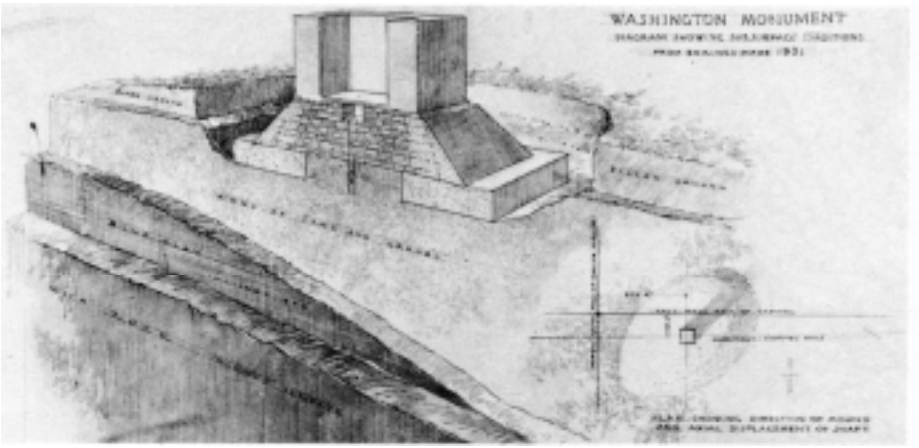


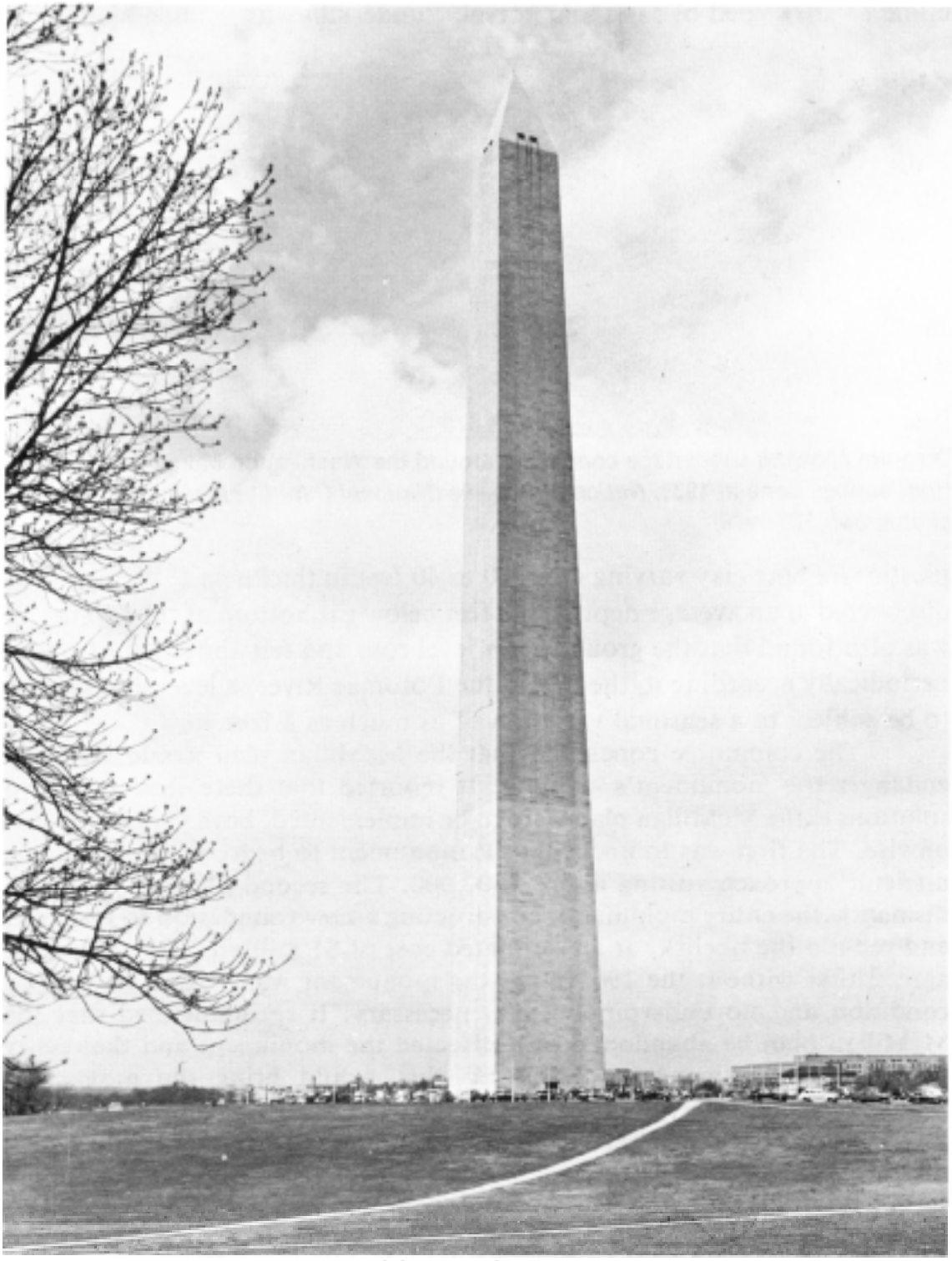
Diagram showing subsurface conditions around the Washington Monument, made from borings done in 1931. *National Archives (National Capitol Planning Commission photograph 328-m-29).*

plastic wet blue clay varying from 20 to 40 feet in thickness." Bedrock was discovered at an average depth of 80 feet below the bottom of the footing. It was also found that the groundwater level rose and fell about .28 of a foot periodically according to the tide in the Potomac River, a level that seemed to be subject to a seasonal variation of as much as 8 feet.

The committee concluded that the McMillan plan would seriously endanger the monument's stability. It reported that there were only two solutions if the McMillan plan were to be implemented, both very costly and unwise. The first was to underpin the monument to bedrock, an extremely difficult approach costing about $600,000. The second alternative was to dismantle the entire monument, constructing a new foundation to bedrock, and rebuild the obelisk, at an estimated cost of $1 million. The committee agreed that without the 1901 plan, the monument was safe in its present condition and no underpinning was necessary. It recommended that the McMillan plan be abandoned as it affected the monument and that other plans, less ambitious, be considered that would bring the monument grounds into harmony with the rest of the Mall.[57]

Two other plans offered at this time were also rejected. Ultimately the whole matter of embellishing the monument grounds was abandoned. In the final analysis, the McMillan plan, which had succeeded in almost every other respect, had failed to realize its most "painstaking and elaborate proposal" for the Washington Monument grounds.[58]

On 10 August 1933, the Washington National Monument was transferred to the control of the National Park Service, ending a long association with the Corps of Engineers that had begun before the Civil War. Thomas Casey had managed completion of the monument; his Engineer successors had preserved and maintained it for nearly a half century. Another fifty years later, it stands still, a monument to the nation's first President and hallmark of the skyline of the city that bears his name.



The monument in 1949. ***U.S. Army (photograph SC 315301-NFS).***